

### **Remarks**

The Applicant gratefully acknowledges the Office Action of July 18, 2007. Applicant notes that his Response filed May 30, 2007, incorrectly labels the status of Claim 17 as "Original." The claim was amended and therefore should have been designated as "Currently Amended." The claim is presently identified as "Currently Amended" in light of amendments offered herein. This clerical error will be considered inconsequential unless otherwise notified. Claims 1-8; 9-16; and 17-24 remain in the case with none of the claims being presently allowed.

### **35 U.S.C. § 112**

#### **Written Description**

Claims 1-24 were rejected under §112, first paragraph, for failing to comply with the written description requirement insofar as the subject matter was supposedly not described in a way to reasonably convey to one skilled in the relevant art that the inventor had possession of the claimed invention at the time the application was filed. Reconsideration is respectfully requested in view of the following remarks.

The Examiner supports this assertion with the following examples:

- 1) Claim 1, Step B: "adjusting the reducing environment such that SO<sub>3</sub> is reduced to SO<sub>2</sub> prior to selective catalytic reduction to achieve a desirable level of SO<sub>3</sub> for optimizing precipitator function;"
- 2) Claim 9, Step B: "adjusting the reducing environment such that SO<sub>3</sub> is reduced to SO<sub>2</sub> to achieve a desirable level of SO<sub>3</sub> for optimizing precipitator function;"
- 3) Claim 17, Step B: "adjusting the reducing environment time period such that SO<sub>3</sub> is preferentially reduced to SO<sub>2</sub> to achieve a desirable level of SO<sub>3</sub> for optimizing precipitator function;"

In response, Applicant contends that since that the Person of Ordinary Skill in the Art ("POSITA") would have known how to perform the steps at issue, it is properly inferred that the Applicant himself was in possession of those steps at the time the application was filed.

Evidence that the POSITA would have known how to perform the aforementioned steps is clearly established in the attached Declaration of Mark Schilling submitted contemporaneously with this Response. Withdrawal of the rejection is respectfully requested.

### Enablement

Claims 1-24 were rejected under §112, first paragraph, for failing to comply with the enablement requirement insofar as the subject matter was supposedly not described in a way as to enable one skilled in the art to make and/or use the invention. Reconsideration is respectfully requested in view of the following remarks.

The Declaration of Mark Schilling submitted herein clearly establishes that the POSITA would have been able to perform the invention according to the claims, based on the filed specification and claims and what was known by the POSITA at the time of filing. Applicant appreciates withdrawal of the rejection in light of said Declaration.

### 35 U.S.C. §103

#### Claims 9-16

Claims 9-16 were rejected as unpatentable under §103(a) in light of the combination of Kindig and Wright. In response, Applicant respectfully reasserts the arguments of his May 30, 2007 response in which it is pointed out that Kindig teaches adjusting the environment to create more SO<sub>3</sub> whereas the present invention pertains to adjusting the environment to create less SO<sub>3</sub> for optimum precipitator function. Thus, Kindig effectively teaches away from the present invention.

Applicant respectfully disagrees with Examiner's assertion that both SO<sub>2</sub> and SO<sub>3</sub> are inherently formed, thereby teaching "adjusting the reducing environment such that SO<sub>3</sub> is reduced to SO<sub>2</sub> to achieve a desirable level of SO<sub>3</sub>" in light of the fact that the POSITA would understand that the adjustment of the present invention selects for lowering the overall concentration of SO<sub>3</sub>.

However, for purposes of expediting prosecution, independent Claim 9 has been amended to specify:

“...adjusting the reducing environment such that SO<sub>3</sub> is reduced to SO<sub>2</sub> to effectuate an overall decrease in SO<sub>3</sub> concentration and achieve a desirable level of SO<sub>3</sub> for optimizing precipitator function...”

Applicant submits that said amendment does not constitute the introduction of new matter in light of language in the specification<sup>1</sup> and the POSITA's understanding that an overall decrease in SO<sub>3</sub> would be sought since a reaction at equilibrium would be of no relevant consequence in the present invention.

In light of the offered amendment, Applicant submits that independent Claim 9 and Claims 10-15 depending therefrom are clearly distinguished from the cited art. Reconsideration of these claims and allowance is respectfully requested.

#### Claims 1-3, 8-11, 16-19 and 24

Claims 1-3, 8, 9-11, 16, 17-19 and 24 were rejected under §103 as unpatentable over Carver in view of Fan and Wright. Applicant respectfully disagrees that the aforementioned claims are obvious in view of the three references for the following three reasons:

- 1) None of the references describe the step of adjusting SO<sub>3</sub> levels. Applicant disagrees with Examiner's contention that inherent production of SO<sub>2</sub> and SO<sub>3</sub> during combustion teaches the step of adjusting because allowing combustion to occur does not mean adjusting.
- 2) Wright, cited for supposedly optimizing precipitator function, actually teaches against the invention insofar as it discloses the “improved conversion” of SO<sub>2</sub> into SO<sub>3</sub> whereas the present invention favors the conversion of SO<sub>3</sub> into SO<sub>2</sub>.

---

<sup>1</sup> See *inter alia* page 9, lines 1-3 “...decrease SO<sub>3</sub> concentration...”.

- 3) It is well settled that “impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.”<sup>2</sup> Applicant respectfully suggests that hindsight reconstruction has occurred here in light of the fact that a similar rejection was made in the previous Office Action (dated 1/30/07) to which the Applicant argued that *optimizing precipitator function* was not taught, and new art purporting to teach the invention *for optimizing precipitator function* was subsequently identified and cited in the current Office Action.

However, for purposes of expediting prosecution, independent Claims 1, 9 and 17 have been amended to specify:

“actively adjusting the reducing environment...”

Applicant submits that inserting the term “actively” does not constitute the introduction of new matter since the specification sets forth methods for adjusting the reducing environment that inherently require active adjustment.<sup>3</sup> Allowance of independent Claims 1, 9 and 17, and claims 2, 3, 8, 10, 11, 16, 18, 19 and 24 depending therefrom is respectfully requested in light of the aforementioned amendments.

#### Claims 4-7, 12-15 and 20-23

Claims 4-7, 12-15 and 20-23 were rejected as obvious in light of the combination of Carver, Fan and Kindig. The rejection of Claims 4-7, 12-15 and 20-23 is deemed moot in light of the amendments to independent Claims 1, 9 and 17, from which the claims at issue depend.

---

<sup>2</sup> MPEP §2142

<sup>3</sup> Page 9, lines 1-17.

By this amendment, Applicant submits that he has placed the case in condition for immediate allowance and such action is respectfully requested. However, if any issue remains unresolved, Applicant's attorney would welcome the opportunity for a telephone interview to expedite allowance and issue.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Edward W. Rilee', written in a cursive style.

Edward W. Rilee  
Registration No. 31,869  
MacCord Mason PLLC  
P. O. Box 2974  
Greensboro, NC 27402  
(336) 273-4422

Date: January 16, 2008  
File No.: 7340-010